

REMARKS

The Office rejected all pending claims 1-7 and 9-24. Claims 1-7 and 9-24 (3 independent and 23 total claims) remain pending in the application and are believed to be in condition for allowance. Applicant thanks Examiner Tuan Dinh and Primary Examiner Albert Paladini for the phone interview with Applicant's attorney Shahpar Shahpar on December 18, 2002. This phone interview was confined to the 35 U.S.C. § 102 rejections, and it was established that the 35 U.S.C. § 102 rejections are overcome. Regardless, Applicant agreed to submit this Response in connection with all outstanding rejections. Reconsideration is respectfully requested.

35 U.S.C. § 112 REJECTIONS

Claims 4 and 5 stand rejected for the first time under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection.

The Examiner alleges that lines 2 and 3 of claim 4 are unclear, and indicates that the phrase "when said screws are tightened to apply a predetermined amount of force...said chassis" is not understood. The Examiner questions how the screws can apply the predetermined amount of force, and what causes the screws when tightened to apply the predetermined amount of force.

Claim 4 recites "said first and second screws are configured to clutch when said screws are tightened to apply a predetermined amount of force between said face plate of the PCB module and said chassis". Claim 5 depends from claim 4 and recites "said predetermined amount of force applies a load of about 70 pounds per screw". Exemplary embodiments of claims 4 and 5 are described in the Present Application, p. 10, lines 8-18, for example (emphasis added):

The face plate 313 of the PCB module 312 suitably includes screws 316 and 318 for securing to holes 350 and 352 formed along the upper and lower horizontal beams 308 and 352, respectively. In the present exemplary embodiment, the screws 316 and 318 are suitably configured to apply a load of about 70 pounds each when fully tightened to secure the PCB module 312 within the chassis 302 against vibrations. However, the screws 316 and 318 can be configured to apply any desired load depending on the particular application. When the screws 316 and 318 are fully tightened, the screws 316 and 318 are suitably configured to clutch; meaning that the screws 316 and 318 can be turned without further tightening. Additionally, when the screws

316 and 318 clutch, they are further configured to self-latch; meaning that they cannot be extracted without being turned in the opposite direction. However, when the screws 316 and 318 are turned in the opposite direction, they loosen without clutching.

Another exemplary embodiment of the screws is illustrated on p. 11, lines 1-7, describing a jack screw:

In accordance with one aspect of the present invention, the screw 316 is suitably configured as a jack screw. Accordingly, when the screw 316 is loosened, the screw 316 moves the face plate 313 and thus the PCB module 312 away from the chassis 302. Similarly, when the screw 316 is tightened, the screw 316 moves the face plate 313 and thus the PCB module 312 toward the chassis 302. In this manner, the PCB module 312 can be more easily removed from and inserted into the chassis 302. It should be recognized that the screw 318 can be configured as a jack screw either instead of or in conjunction with the screw 316 (emphasis added):

WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (Unabridged) defines a jack screw as "a cylinder with a helical cut groove on the outer surface or a cone with a conical spiral groove used variously (as to fasten, apply pressure, transmit motion, or make adjustments) esp. when a large mechanical advantage and irreversible motion are desired".¹ Accordingly, by definition and as further described above, the screws can "apply a predetermined amount of force between said face plate of the PCB module and said chassis" by clutching and/or self-latching (e.g., screws 316 and 318 can be turned without further tightening, or they cannot be extracted without being turned in the opposite direction). Thus, the above definition of a jack screw and examples of the present invention illustrates how the screws apply a predetermined amount of force and what causes the predetermined amount of force. Therefore, claims 4 and 5 are in accordance with 35 U.S.C. § 112, second paragraph, so that Applicant respectfully requests withdrawal of this rejection.

35 U.S.C. § 102 REJECTIONS

¹ WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (Unabridged) 2040 (Merriam-Webster, Inc. 1993):

Claims 1, 13, and 22-24 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by Mazura, U.S. Patent No. 5,375,724, issued December 27, 1994 ("Mazura"). Applicant respectfully traverses the rejection.

Mazura discloses a component carrier 1 to accommodate plug-in modules 2 and includes two front module rails 3 and two rear module rails (not visible). These four module rails 3 connect the two side walls 4 of component carrier 1, which further includes holding strips 5 that fasten the component carrier 1 in an equipment cabinet (not shown). Component carrier 1 together with side walls 4, a top 6, a rear wall, and a bottom (the latter two not visible) is tightly sealed against high frequencies to ensure a tight seal. Col. 3, line 60 to Col. 4, line 6.

Using plug-in connections and a rear wall plate in Mazura, plug-in modules 2 are in communication with one another within component carrier 1. Plug-in module 2 has a circuit board 7 and a front panel 8, where circuit board 7 has electronic and electrical components interconnected by metal conductor paths. Each circuit board 7 is guided in guide rails that extend between the front and rear module rails 3. The front edge of circuit board 7 is fastened to front panel 8, which has a pivotal removal handle 9 for inserting and removing plug-in module 2. Col. 4, lines 7-21.

Mazura discloses a seal for providing electrical contacts. However, problems arise due to unavoidable gaps between plug-in modules 2 which are pushed into and out of component carrier 1. In order to seal the gaps between the front panels of plug-in modules 2, spring strips establish a plurality of electrical contacts with the edges of the adjacent front panels. Col. 1, lines 30-46. The spring strips establish a row of electrical contacts, which prevent the escape as well as the inward penetration of electromagnetic high frequency interfering fields through the gaps. Col. 4, lines 22-32.

However, Mazura fails to disclose where "each PCB module includes a faceplate and a connector assembly disposed opposite said faceplate such that each PCB module is enclosed" as recited in claim 1 (and claims 13 and 22 which depend from claim 1). Mazura further fails to disclose "each PCB module is enclosed" as recited in claim 24. Mazura discloses a form of communication between the plug-in modules, namely, the plug-in connections and the rear wall plate. Indeed, the "rear wall plate" which is common to all the plug-in modules in Mazura teaches away from the present invention where "each PCB module includes a faceplate and a connector assembly disposed opposite said faceplate such that each PCB module is enclosed" as

recited in claim 1 and "each PCB module is enclosed" as recited in claim 24 (emphasis added). Mazura has a common rear wall plate for all plug-in modules (so that the plug-in modules can communicate with each other). Whereas, in claim 1, each PCB module has a faceplate and a connector assembly, not one common assembly. As such, each PCB module in claims 1 and 24 is enclosed. Thus, Mazura fails to disclose "a connector assembly disposed opposite said faceplate such that each PCB module is enclosed" as recited in claim 1 and "each PCB module is enclosed" as recited in claim 24.

Mazura also fails to disclose "said plurality of printed circuit board modules creates a seal with said chassis" as recited in claims 1, 23, and 24 (and claims 13 and 22 which depend from claim 1). Mazura discloses spring contact strips 13 with closely spaced elastic spring leaves 14 where "when plug-in module 2 is inserted, lay themselves against the smooth long side 15 of the adjacent front panel 8" of plug-in module 2, so that the seal is clearly between plug-in modules 2. Figure 1 shows spring contact strips 13 with closely spaced elastic spring leaves 14 between plug-in modules 2 only. Col. 4, lines 22-32 and Figure 1. Thus, the seal in Mazura is between plug-in modules 2 only and not between plug-in modules 2 and component carrier 1. Therefore, Mazura fails to disclose "said plurality of printed circuit board modules creates a seal with said chassis" as recited in claims 1, 23, and 24.

Accordingly, Applicant respectfully submits that each and every element of claims 1, 13, and 22-24 are not disclosed and therefore not anticipated by Mazura. Therefore, Applicant respectfully requests the withdrawal of this rejection.

35 U.S.C. § 103 REJECTIONS

Claims 2-5, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mazura in view of Harris, U.S. Patent No. 5,546,273, issued August 13, 1996 ("Harris"). Applicant respectfully believes that the § 103 rejections contained within the Office Action are now moot, since they apply to claims that depend from independent claims that are patentable in light of the foregoing arguments. Nevertheless, Applicant further distinguishes the references.

Harris discloses an automotive audio system 10 having a controller housing 12, an amplifier housing 14, and a remote data access terminal (RDAT) 16 with the controller housing 12 and amplifier housing 14 mounted in the trunk 20 of the automotive vehicle 18. Col. 3, lines 1-12. Controller housing 12 includes an audio component card 70 with a circuit board 72 and a

face plate 74. Thumb screws 90 secure audio component card 70 within controller housing 12. Col. 9, line 57 to Col. 10, line 9.

Claim 2

Mazura in view of Harris fails to teach, advise, or suggest "each of said plurality of PCB modules further comprises: a first screw for attaching said first end of said face plate to said chassis; and a second screw for attaching said second end of said face plate to said chassis" as recited in claim 2 (and claims 3-5, which variously depend from claim 2). Although "each front panel is provided at its top and bottom near its transverse edges 18 with a fastening screw 19 having a slotted screw head 20" in Mazura, this configuration is "to enable the front panels 8 of the plug-in modules 2 to be screwed to module rails 3" and not to component carrier 1. As such, Mazura fails to teach, advise, or suggest where a screw attaches the face plate to the chassis; rather, Mazura uses fastening screw 19 to enable front panels 8 to be screwed to module rails 3. Harris, on the other hand, discloses thumb screws 90 for securing audio component card 70 within controller housing 12. The Office alleges that Harris discloses a PCB module (70); however, Harris merely discloses an audio component card 70 having a circuit board 72 and a face plate 74 and not a PCB module as alleged by the Office. Thus, Mazura in view of Harris fails to teach, advise, or suggest "each of said plurality of PCB modules further comprises: a first screw for attaching said first end of said face plate to said chassis; and a second screw for attaching said second end of said face plate to said chassis" as recited in claim 2.

Claim 3

The Office alleges that Mazura discloses "said first screw (19) is configured as a jackscrew" without citation to a relevant passage in Mazura. Although Applicant has carefully reviewed Mazura, Applicant has not identified an express or implied disclosure of a jack screw. Mazura discloses "headless screws" (Col. 4, lines 55-60); however, Mazura fails to teach, advise, or suggest "said first screw is configured as a jack screw" as recited in claim 3. Applicant respectfully requests clarification from the Office.

Claims 4 and 5

The Office alleges that Harris discloses said first and second screws (90 of Harris) are configured to clutch when said screws are tightened to apply a predetermined amount of force between said faceplate (8 of Mazura) of said printed circuit board module and said cabinet. The Office further alleges that Mazura and Harris disclose and satisfy the claimed invention except

for the predetermined amount of force is about 70 pounds per screw. The Office argues that it would have been obvious to one having ordinary skill in the art at the time of the invention to apply the force to fasten the screw on the module for securing the module within the cabinet, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art".² Applicants respectfully note that the Examiner provides no prior art teaching or suggestion which would provide a basis for the Examiner's conclusions. The Examiner may take official notice of facts outside the record which are well known in the art. The particular "load of about 70 pounds per screw", however, is not known or disclosed and cannot fairly be construed as "well-known". Accordingly, Applicant respectfully requests that the Examiner cite a reference in support of his or her position under M.P.E.P. § 2144.03.

A "jack screw" is a mechanical device, where a screw applies a certain amount of force to lift or push a load. Indeed, WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (Unabridged) defines a jack screw as "a cylinder with a helical cut groove on the outer surface or a cone with a conical spiral groove used variously (as to fasten, apply pressure, transmit motion, or make adjustments) esp. when a large mechanical advantage and irreversible motion are desired" (emphasis added).³ Accordingly, Mazura does not teach that the "headless screw" is a jack screw or that any amount of force is applied by the screw to clutch or hold the module to the chassis. On the other hand, WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (Unabridged) defines a thumbscrew as merely "consisting wholly or partly of a screw or possessing a worm".⁴ As such, by definition, a thumbscrew does not apply any amount of force to clutch or hold. Harris fails to teach, advise, or suggest that any amount of force is applied by thumb screws 90 to clutch or hold, e.g., a module to a chassis. As such, Mazura in view of Harris fail to teach, advise, or suggest "said first and second screws are configured to clutch when said screws are tightened to apply a predetermined amount of force between said face plate of the PCB module and said chassis" as recited in claim 4 (and claim 5, which depends from claim 4), or "said predetermined amount of force applies a load of about 70 pounds per screw" as recited in claim 5.

Claims 19 and 20

² Citing *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

³ WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (Unabridged) 2040 (Merriam-Webster, Inc. 1993).

⁴ WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (Unabridged) 2040 (Merriam-Webster, Inc. 1993).

Mazura discloses "four module rails 3 which are made of aluminum profiles and are arranged parallel to one another and in a horizontal plane, [and] connect the two side walls 4 of component carrier 1 which are equipped with holding strips 5". Indeed, as illustrated in Figure 1 of Mazura, rails 3 connect the two side walls 4, so that they cannot be "centrally mounted with respect to each slot" as recited in claim 20. Harris discloses a chamber 44 within controller housing 12, where chamber 44 has walls 30, 32, and 34, and a door 40. An upper and lower chassis 31 and 35 are mounted within chamber 44, where upper and lower tracks 52 snap fit respectively into each chassis. Col. 3, lines 49-59.

"The factual inquiry whether to combine references must be thorough and searching".⁵ "It must be based on objective evidence of record".⁶ "This precedent has been reinforced in myriad decisions, and cannot be dispensed with".⁷ Accordingly, Applicant submits that the cited art of record contains no teaching, suggestion, or motivation to combine the references as proposed by the Office.⁸ The Office is impermissibly picking and choosing the various missing claimed elements using hindsight reasoning in an attempt to recreate the claimed invention with Applicant's disclosure as the basis. Thus, without using impermissible hindsight reasoning, it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify Mazura in view of Harris to include the missing claimed elements. Regardless, Mazura in view of Harris fails to teach, advise, or suggest "said top panel and said bottom panel are configured with a plurality of guide rails for guiding said PCB modules into said slots in said chassis" as recited in claim 19 (and claim 20, which depends from claim 19) or "each slot in said chassis has one guide rail mounted on said top panel and one guide rail mounted on said bottom panel, wherein said guide rails are centrally mounted with respect to each slot" as recited in claim 20.

Therefore, Applicant respectfully requests the withdrawal of the rejection of claims 2-5, 19, and 20 over Mazura in view of Harris.

⁵ *In re Sang Su Lee*, 277 F.2d 1338, 1342, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002) (citing *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d (BNA) 1001, 1008 (Fed. Cir. 2001)).

⁶ *In re Sang Su Lee* at 1342.

⁷ *Id.* (citing *Brown & Williamson Tobacco Corp. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d (BNA) 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" quoting *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 U.S.P.Q.2d (BNA) 1225, 1232 (Fed. Cir. 1998); *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d (BNA) 1614, 1617 (Fed. Cir. 1999)).

⁸ See *ACS Hosp. Systems, Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984) (teachings of the prior art can be combined to show obviousness only if there is some suggestion or teaching to do so).

Claims 6, 7, and 9-11

The Office rejected claims 6, 7, and 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Mazura in view of Martin, U.S. Patent No. 5,424,916, issued June 13, 1995 ("Martin"). Applicant respectfully traverses this rejection.

The Office alleges that Martin discloses "a module (30) having first and second printed circuit boards (32-34-figure 2) connected to a connector assembly (50) with 90 degrees lead and without using ribbon cables". The Office argues that it would have been obvious to one of ordinary skill in the art at the time of invention "to modify the cabinet of Mazura and provide the module having more than one circuit board connected to the connector assembly as taught by Martin in order to reduce an electrical connection between two boards and backplane connector of the cabinet".

Martin discloses a combination conductive and convective heatsink for use in an electronic module. A heatsink member 10 includes first and second major planar surfaces 12 and 14, respectively. Adjacent surfaces 12 and 14 is an object from which heat is to be transferred, where the object is an electronic circuit board. The conductive and flow-through heatsink uses heat pipes 18a-18d and 23 with flow-through passage areas 20a-20e. Heat pipes 18a-18d and 23 are used to conduct heat from surfaces 12 and 14 to a mounting rack 42. For example, heat pipe 18b is a conventional heat pipe having wicking material 22 located on the inner surface of the pipe. Alternatively, solid heat pipe 23 has carbon fibers 24 oriented to conduct heat from surfaces 12 and 14 to mounting rack 42. Conductive and convective heatsink 10a is used with electronic module 30 having first and second electronic circuit boards 32 and 34. Electronic module 30 is mounted in mounting rack 42 having side walls 41 and 43, motherboard 44, and connectors 46a-46c. A "recess 48 guides electronic module 30 into mounting rack 42 until electronic module connector 50 and connector pins 51 engage and mate with mother board connector 46b". Col. 4 to Col. 5.

Accordingly, even the combination of Mazura in view of Martin fails to teach, advise, or suggest a PCB module having "a first circuit board having a first end connected to said face plate and an opposite second end connected to said connector assembly; and a second circuit board having a first end connected to said face plate and an opposite second end connected to said connector assembly" as recited in claim 6 (and claim 7, which depends from claim 6). Mazura in

view of Martin also fails to teach, advise, or suggest a PCB module having a connector assembly where "said connector assembly further comprises a plurality of connectors for connecting to wire harnesses" as recited in claim 7 (and claims 9-11, which variously depend from claim 7).

As described above, each "plug-in module 2 is essentially composed of a circuit board 7 and a front panel 8". As such, plug-in module 2 of Mazura is compact compared to electronic module 30 of Martin having first and second electronic circuit boards 32 and 34 mounted on heatsink member 10a. Consequently, attempting to insert the electronic module 30 of Martin having first and second electronic circuit boards 32 and 34 and heatsink member 10a into plug-in module 2 of Mazura would render Mazura inoperable for its intended use. Accordingly, Mazura differs from Martin in connection with the definition of "module" and, consequently, how the electronic module 30 (i.e., circuit boards 32 and 34 and heatsink 10a) would fit into the rack or carrier. The electronic module 30 (i.e., circuit boards 32 and 34 and heatsink 10a) of Martin could not fit in the space made for plug-in module 2. Thus, Mazura clearly differs from Martin, and attempting to modify Mazura with the electronic module 30 of Martin would render Mazura inoperable for its intended use.

Furthermore, Martin is non-analogous art under M.P.E.P. § 2141.01(a). "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned."⁹ As discussed above, Martin discloses a combination conductive and convective heatsink. A conductive and convective heatsink is not reasonably pertinent to the problem with which the invention is concerned. The solid heat pipe 23 and carbon fibers 24 in Martin are oriented to conduct heat from surfaces 12 and 14 to mounting rack 42. On the other hand, the present invention addresses electromagnetic interference (EMI), radio frequency interference (RFI), environmental contaminants, and vibrations (See Present Application, p. 1, lines 11-14). Thus, the problems with heatsinks are not reasonably pertinent to the problems with EMI, RFI, contaminants, or vibrations. Therefore, Martin is non-analogous art.

⁹ *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992) and see M.P.E.P. § 2141.01(a).

"The factual inquiry whether to combine references must be thorough and searching".¹⁰ "It must be based on objective evidence of record".¹¹ "This precedent has been reinforced in myriad decisions, and cannot be dispensed with".¹² Accordingly, Applicant submits that the cited art of record contains no teaching, suggestion, or motivation to combine the references as proposed by the Office.¹³ The Office is impermissibly picking and choosing the various missing claimed elements using hindsight reasoning in an attempt to recreate the claimed invention with Applicant's disclosure as the basis. Thus, without using impermissible hindsight reasoning, it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify Mazura in view of Martin to include the missing claimed elements. Regardless, the combination fail to teach, advise, or suggest the missing claimed elements. Therefore, claims 6, 7, and 9-11 are patentable over Mazura in view of Martin.

Claims 14-18

The Office rejected claims 14-18 under 35 U.S.C. § 103(a) as being unpatentable over Mazura in view of McCarthy, U.S. Patent No. 5,398,822, issued March 21, 1995 ("McCarthy"). Applicant respectfully traverses this rejection.

Mazura fails to teach, advise, or suggest where "said top panel and said bottom panel are interchangeable" as recited in claim 14 or where "said first side panel and said second side panel are interchangeable" as recited in claim 15. The Office argues that "a part of the cabinet may be relocated without modification to the operation of the cabinet", so that "such a relocation is considered to have been within the skill of art".¹⁴ Clearly, interchangeable panels are not a mere relocation of parts falling under *In re Japikse*. The present application recognizes that interchangeable panels simplify assembly and reduce the number of required parts. Present Application, lines 8-13. Alternatively, for example, McCarthy distinguishes top chamber 12

¹⁰ *In re Sang Su Lee*, 277 F.2d 1338, 1342, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002) (citing *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d (BNA) 1001, 1008 (Fed. Cir. 2001)).

¹¹ *In re Sang Su Lee* at 1342.

¹² *Id.* (citing *Brown & Williamson Tobacco Corp. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d (BNA) 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" quoting *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 U.S.P.Q.2d (BNA) 1225, 1232 (Fed. Cir. 1998); *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d (BNA) 1614, 1617 (Fed. Cir. 1999)).

¹³ See *ACS Hosp. Systems, Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984) (teachings of the prior art can be combined to show obviousness only if there is some suggestion or teaching to do so).

¹⁴ Citing *In re Japikse* 86 USPQ 70 (1950).

from "open" bottom compartment 16 indicating they would not be interchangeable. It is evident that where two elements are identical in McCarthy, it is so indicated (e.g., wave or card guide 30 and identical mirror image wave or card guide 32 are so indicated). In this manner, McCarthy addresses a different need by making the top and bottom chamber and compartment distinguishable and unique. Mazura, on the other hand, does not even recognize this feature and therefore fails to address it.

McCarthy also fails to teach, advise, or suggest where "said ventilation holes are less than about 0.09 inches in diameter" as recited in claim 18. The Office argues that it would have been "an obvious matter of design choice to make as small (diameter) as possible to reduce the amount of space, since such a modification would have involved a mere change in this size of the hole". The Office further alleges that a "change in size is generally recognized as being within the level of ordinary skill in the art".¹⁵

However, the size of the holes was carefully considered in McCarthy as follows:

Because there is no source of EMI/RFI emissions adjacent the openings 55, these openings are slightly larger than openings 56 to allow greater air flow...the size of each of the openings 55 is approximately 11.75 mm X 18.7 mm and 11.9 mm deep...The size and depth of the openings 56 are chosen to balance the functional requirement of providing a Faraday shield preventing RFI/EMI emissions and yet permitting sufficient air flow through the card cage to dissipate the heat generated by the electronics without causing acoustic noise. Col. 6, lines 25-44.

As such, the holes were not merely chosen to be as small as possible to save space, but rather to balance the functional requirements of a Faraday shield and sufficient air flow. Indeed, 0.09 inches is about 2.3 mm. In this manner, a rectangular hole of approximately 11.75 mm X 18.7 mm and 11.9 mm deep is not a hole less than about 2.3 mm (i.e., about 0.09 inches). Accordingly, McCarthy fails to teach, advise, or suggest where "said ventilation holes are less than about 0.09 inches in diameter" as recited in claim 18.

"The factual inquiry whether to combine references must be thorough and searching".¹⁶ "It must be based on objective evidence of record".¹⁷ "This precedent has been reinforced in myriad decisions, and cannot be dispensed with".¹⁸ Accordingly, Applicant submits that the

¹⁵ Citing *In re Rose*, 105 USPQ 237 (CCPA 1955).

¹⁶ *In re Sang Su Lee*, 277 F.2d 1338, 1342, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002) (citing *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d (BNA) 1001, 1008 (Fed. Cir. 2001)).

¹⁷ *In re Sang Su Lee* at 1342.

¹⁸ *Id.* (citing *Brown & Williamson Tobacco Corp. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d (BNA) 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to

cited art of record contains no teaching, suggestion, or motivation to combine the references as proposed by the Office.¹⁹ The Office is impermissibly picking and choosing the various missing claimed elements using hindsight reasoning in an attempt to recreate the claimed invention with Applicant's disclosure as the basis. Thus, without using impermissible hindsight reasoning, it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify McCarthy and/or Mazura to include the missing claimed elements. Regardless, Mazura in view of McCarthy fails to teach, advise, or suggest the missing claimed elements. Therefore, claims 14-18 are patentable over Mazura in view of McCarthy.

Claims 12 and 21

The Office rejected claims 12 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Mazura in view of Martin and further in view of McKenzie, U.S. Patent No. 4,002,386, issued January 11, 1977 ("McKenzie"). Applicant respectfully traverses this rejection.

The McKenzie reference discloses a handle, which locks in place to prevent it from pinching fingers against the printed circuit boards since there is no face plate covering the PCB. As part of the locking mechanism, a plurality of pulling pins are disclosed that interact with slots in the handle to keep it in a locked position.

However, the combination of Mazura in view of McCarthy and in further view of McKenzie fails to teach, advise, or suggest a face plate having "a slot formed therein", "a flexible handle member having substantially the same dimensions as said slot", where the flexible handle member is "configured to move between a retracted position and a use position", and where the flexible handle member lies within the "slot in said retracted position and said flexible handle member extends out from said slot in said use position" as recited in claim 12. Furthermore, Mazura in view of McCarthy and in further view of McKenzie fails to teach, advise, or suggest a retainer member configured to attach the first end of the flexible handle member to the first end of the slot such that the flexible handle member is configured to move between a retracted position and a use position, where the first end of the flexible handle member

combine the prior art references is an "essential component of an obviousness holding" quoting C.R. Bard, Inc. v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 U.S.P.Q.2d (BNA) 1225, 1232 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d (BNA) 1614, 1617 (Fed. Cir. 1999).

¹⁹ See ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577 (Fed. Cir. 1984) (teachings of the prior art can be combined to show obviousness only if there is some suggestion or teaching to do so).

does not move when the flexible handle member moves between the retracted position and the use position as recited in claim 21.

Upon careful examination of the cited figures and the accompanying text of McKenzie, col. 2, lines 39-47, it is apparent that the handle is not slideably attached, but rather is attached to pins mounted in the printed circuit board. Slots in the handle move the handle over a pin to a keyhole 50/51 in the slot, which then locks the handle in position. As such, McKenzie teaches a handle arrangement that requires pins to be mounted directly on to the printed circuit board and handle ends, which lock the handle in position. Indeed, the McKenzie reference teaches away from the claimed invention in that the handle in McKenzie is made to lock into position. In addition, modifying the handle in McKenzie to include the missing claimed elements would render McKenzie improper for its intended purpose, namely to lock the handle in position. Consequently, even a combination of Mazura in view of McCarthy and in further view of McKenzie fails to teach, advise, or suggest the claimed invention as recited in claims 12 and 21.

"The factual inquiry whether to combine references must be thorough and searching".²⁰ "It must be based on objective evidence of record".²¹ "This precedent has been reinforced in myriad decisions, and cannot be dispensed with".²² Accordingly, Applicant submits that the cited art of record contains no teaching, suggestion, or motivation to combine the references as proposed by the Office.²³ The Office is impermissibly picking and choosing the various missing claimed elements using hindsight reasoning in an attempt to recreate the claimed invention with Applicant's disclosure as the basis. Thus, without using impermissible hindsight reasoning, it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify Mazura and/or Martin in view of McKenzie to include the missing claimed elements. Regardless, Mazura and/or Martin in view of McKenzie fails to teach, advise, or suggest the missing claimed elements. Therefore, claims 12 and 21 are patentable over Mazura in view of McCarthy and in further view of McKenzie.

²⁰ In re Sang Su Lee, 277 F.2d 1338, 1342, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002) (citing McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d (BNA) 1001, 1008 (Fed. Cir. 2001)).

²¹ In re Sang Su Lee at 1342.

²² Id. (citing Brown & Williamson Tobacco Corp. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d (BNA) 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" quoting C.R. Bard, Inc. v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 U.S.P.Q.2d (BNA) 1225, 1232 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d (BNA) 1614, 1617 (Fed. Cir. 1999)).

²³ See ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577 (Fed. Cir. 1984) (teachings of the prior art can be combined to show obviousness only if there is some suggestion or teaching to do so).

CONCLUSION

Based on the foregoing, Applicant respectfully submits that the present application is in condition for allowance. Reconsideration of the application is thus requested. Applicant invites the Office to telephone the undersigned if he or she has any questions whatsoever regarding this Response or the present application in general.

Respectfully submitted,

12-30-02

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